I/WE CLAIM:

1. A method of establishing a secure Layer-3 connection across an ATM network, the Layer-3 connection having a first endpoint at an egress port of an originating multiservice switch (MSS) and a second endpoint at an ingress port of a terminating MSS, the method comprising the steps of:

configuring the terminating MSS with anticipated security information;

at the originating MSS, generating a setup message including embedded security information;

sending the setup message to the terminating MSS;

at the terminating MSS, extracting the embedded security information from the setup message;

determining whether the embedded security information matches the anticipated security information; and

if the embedded security information matches the anticipated security information, establishing the Layer-3 connection.

2. The method of claim 1 wherein the Layer-3 connection is a Soft Permanent Virtual Circuit, and wherein the embedded security information and the anticipated security information are associated with the first endpoint.

3. The method of claim 1 wherein the Layer-3 connection is a Soft Permanent Virtual Circuit, and wherein the embedded security information and the anticipated security information are associated with the second endpoint.

4. The method of claim 1 wherein the embedded security information and the anticipated security information are Closed User Group Interlock Codes.

5. The method of claim 1 wherein the Layer-3 connection is established by an originating user belonging to a configured set of originating users, and

wherein the embedded security information and the anticipated security information are associated with the configured set of originating users.

6. The method of claim 1 wherein the Layer-3 connection is established through an Internet Protocol (IP) interface address at the originating MSS belonging to a set of configured IP interface addresses, and wherein the embedded security information and the anticipated security information are associated with the configured set of IP interface addresses.

7. The method of claim 1 wherein the Layer-3 connection is established to a terminating user belonging to a configured set of terminating users, and wherein the embedded security information and the anticipated security information are associated with the configured set of terminating users.

8. The method of claim 1 wherein the Layer-3 connection is established through an Internet Protocol (IP) interface address at the terminating MSS belonging to a set of configured IP interface addresses, and wherein the embedded security information and the anticipated security information are associated with the configured set of IP interface addresses.

9. The method of claim 1 comprising the further steps of:

at the originating MSS, setting a value of a flag in the setup message to indicate that the setup message includes embedded security information;

at the terminating MSS, reading the value of the flag before extracting the embedded security information.

10. An originating multiservice switch (MSS) for establishing a secure Layer-3 connection across an ATM network to a terminating MSS, comprising a call control for generating a Layer-3 connection setup message including embedded security information, and for sending the setup message to the terminating MSS.

11. A computer-readable medium comprising:

instructions for generating a Layer-3 connection setup message to be sent from an originating multiservice switch (MSS) to a terminating MSS; and

instructions for embedding security information within the setup message.

12. A terminating multiservice switch (MSS) for establishing a secure Layer-3 connection across an ATM network from an originating MSS, comprising:

stored anticipated security information;

means for querying a comparator of two pieces of security information; and

a call controller for receiving a Layer-3 connection setup message, for extracting embedded security information from the setup message, for querying the comparator to determine whether the embedded security information corresponds to the anticipated security information, and for establishing the Layer-3 connection in the event that the embedded security information corresponds to the anticipated security information.

13. A computer-readable medium comprising:

instructions for receiving a Layer-3 connection setup message received from an originating multiservice switch;

instructions for extracting embedded security information from the setup message;

instructions for retrieving anticipated security information;

instructions for determining whether the embedded security information corresponds to the anticipated security information; and

instructions for establishing a Layer-3 connection in the event that the embedded security information corresponds to the anticipated security information.